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REPORT OF THE COMPTROLLER GENERAL OF THE UNITED STATES

RELEASED



LM102424

Eppley Airfield, Nebraska: Problems Caused In Council Bluffs, Iowa

Department of Transportation
Federal Aviation Administration

Review of Council Bluffs' problems concerning the Airfield showed that

- the system used to measure the effects of noise was the one advocated by the Federal Aviation Administration at that time;
- efforts were underway to abate noise over Council Bluffs, but more could possibly be done;
- environmental requirements were not followed for the airport levee project; and
- a lack of coordination and communication contributed to misunderstandings and feelings of mistrust.

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MAY 27, 1977

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-164497(1)

The Honorable Dick Clark
United States Senate

Dear Senator Clark:

Your letter of October 29, 1976, requested that we perform a detailed review of factors relating to the impact of air traffic from Eppley Airfield, Omaha, Nebraska, on the city of Council Bluffs, Iowa. Based on your questions and agreements reached with your office, we concentrated on the following areas:

- Noise measurements used in airport layout plans for the Airfield.
- Compliance of development projects at the Airfield with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. 4321).
- Efforts being taken at the Airfield to abate noise over Council Bluffs.
- Coordination of Airfield traffic operations with Council Bluffs.

We reviewed Department of Transportation and Federal Aviation Administration (FAA) orders and other guidance used by FAA's Central Region concerning preparation of airport layout plans and compliance with the Act. We also reviewed documents and correspondence, and held discussions with representatives of various Federal and local organizations, regarding the noise problem in Council Bluffs.

We found that (1) the noise measurement system used in the 1974 airport layout plan for the Airfield was advocated by FAA at the time the plan was prepared, (2) the Central Region did not follow FAA orders concerning compliance with the Act for the airport levee project, (3) efforts have been initiated in an attempt to reduce noise over Council Bluffs but more could possibly be done if existing efforts do not alleviate noise to the extent that Council Bluffs no longer perceives noise as a major problem, and (4) a lack of coordination and communication has apparently contributed to misunderstandings or feelings of mistrust among the parties involved.

BACKGROUND

Eppley Airfield is located in Omaha, Nebraska, and borders the Missouri River which also serves as the border between Nebraska and Iowa. Council Bluffs, Iowa, is located just across the river from Omaha and, as can be seen from the map of the area (see app. I), aircraft approaching or leaving the Airfield can have difficulties avoiding Council Bluffs which is located in the direct path of its runways.

The Airfield is operated by the Omaha Airport Authority which is a separate legal entity under the auspices of the city of Omaha. FAA, which is an agency within the Department of Transportation, staffs, operates, and maintains the Airfield's traffic control tower consistent with its mission to regulate air commerce to foster aviation safety, achieve efficient use of navigable airspace, and develop and operate a common system of air traffic control. Air traffic controllers operate the tower, monitoring and directing local air-borne traffic as well as aircraft and vehicular movement on the Airfield. FAA also has installed and maintains certain air navigation facilities and aids at the Airfield.

Under the Airport and Airway Development Act of 1970, as amended (49 U.S.C. 1701), FAA has provided grants to the Authority to fund a part of the cost of development projects at the Airfield. To obtain these grants, certain FAA conditions must be met, some of which are the

- airport sponsor (authority) must have an approved airport layout plan,
- proposed development project must be consistent with that plan, and
- environmental impact of the proposed project must have been determined and considered.

NOISE MEASUREMENTS USED IN
AIRPORT LAYOUT PLANS

The airport layout plan currently in effect for the Airfield was prepared prior to FAA's requirements for measurements of noise levels. Efforts by the Authority to revise this plan in 1974 included measurements of noise levels based on a noise measurement system, although considered by some as inadequate, that was advocated by FAA. However, FAA's conditional approval of the revised

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plan was not accepted by the Authority and FAA no longer advocates use of the noise measurement system used in preparing that plan.

The airport layout plan currently in effect for the Airfield is dated May 6, 1970. This plan was prepared prior to FAA orders calling for various measurements of noise levels, and it contained none.

A revised airport layout plan for the Airfield dated October 25, 1974, was submitted by the Authority for approval. FAA offered to conditionally approve the plan provided (1) any proposed development depicted on the plan would not be undertaken without its prior written approval and (2) prior written approval would be deemed to be a Federal action subject to the requirements of the National Environmental Policy Act. The Authority, however, did not accept this offer.

The 1974 airport layout plan contains an assessment of the noise impact of current and planned operations on areas surrounding the Airfield. This assessment used the Aircraft Sound Description System (ASDS) supplemented by noise readings measured in decibels on the A scale. The A scale measures sound most easily perceived by the human ear. This system contains files of data that can be applied manually or by computer to describe the ground level noise impacts of various jet aircraft under varying operating conditions. Noise contours can then be developed and plotted on topographical maps to show the "noise prints" of landing and departing aircraft. The 1974 plan contained noise prints under "modified" and "unmodified" conditions, defined as follows:

Modified - Aircraft with engines modified to meet Federal Aviation Regulations Part 36 noise levels, using airport runways after additions and expansion.

Unmodified - Existing aircraft using existing runway facilities.

An organization called National Organization to Insure a Sound-controlled Environment, at the request of a lawyer representing the Omaha-Council Bluffs Legal Aid Society, commented on the propriety of the 1974 airport layout plan. The primary criticisms of the organization regarding noise measurements were:

--Use of ASDS as a noise measurement system which avoided providing meaningful data on the effects of cumulative noise from aircraft on the community.

--Applying noise measurements to modified aircraft in evaluating the effect of noise over Council Bluffs assumed that all aircraft would meet Federal Aviation Regulation Part 36 noise levels by 1980--an assumption that would not stand up in court.

--There was no acceptability of 85 decibels on the A scale as a prescribed threshold level.

In addition, the city of Council Bluffs criticized the noise measurements used in the 1974 airport layout plan, stating:

--They failed to attempt to distinguish between various day versus night sound exposure.

--No noise annoyance survey was made within the areas of Council Bluffs affected by jet aircraft noise.

--Sound readings were neither accurate nor adequate.

Prior to December 7, 1970, FAA did not require measurements for noise levels. FAA Order 5050.2 issued on this date, however, did provide for measurements of noise levels but did not specify a system for measuring these levels except that it "must be based on an acceptable method of noise analysis, such as the Noise Exposure Forecast * * *". Subsequent Order 5050.2A dated February 24, 1975, stated that until a single agreed upon Federal system is developed for compatible land-use designation, both the ASDS method and the Composite Noise Rating method (or other methods such as Noise Exposure Forecast) should be used to describe noise exposure conditions.

The ASDS method was published by FAA in a March 1973 report. Also, an advance copy of Order 7040.2, dated August 10, 1973, established this system, including the 85 decibels on the A scale threshold level, as the basic agencywide method for describing community noise exposure caused by aircraft operations. This order and report show that FAA recognized ASDS as an acceptable method of describing noise exposure conditions both before and after the 1974 plan was published.

The 85 decibels on the A scale threshold level was used in connection with the 1974 plan because it was recommended by the ASDS. Noise readings shown in the 1974 plan were taken to verify the accuracy of the system data which was used as the basis for preparing the noise prints. The noise prints showed how many

minutes a day various areas would be exposed to noise levels exceeding 85 decibels on the A scale. These exposure levels were compared to acceptability criteria published by the Department of Housing and Urban Development and the Occupational Safety and Health Administration and found to be less than the maximum acceptable sound levels established by these organizations.

The 1974 plan considered modified aircraft in assessing noise impacts of planned runway additions and expansion. At the time the 1974 plan was prepared requirements to meet Part 36 noise levels did not apply to most existing jet aircraft. In December 1976, FAA issued a new regulation that requires all existing subsonic jet aircraft over 75,000 pounds to meet Part 36 noise levels on a phased basis during the period 1981-85. The 1974 airport layout plan was prepared to cover planning during the 1975-95 time frame.

Order 5050.2B dated October 21, 1976, includes reference to several noise methodologies to use in analyzing noise exposure, none of which are ASDS. The Department of Transportation's Aviation Noise Abatement Policy dated November 18, 1976, states that debates are ongoing over relative merits of many noise impact measurements. The policy suggests none, but points out "two most common measurements of noise," neither of which are ASDS.

Central Region officials told us that FAA does not have a specific method that must be followed in measuring the level of noise around airports. They said they have and will accept different methods of noise measurements, but it would be helpful if one method was used by everyone.

COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

The Central Region's environmental impact study for relocating the Airfield's Missouri River levee was limited to the levee project's impact on the environment. If the Central Region had properly followed FAA's order for carrying out the National Environmental Policy Act, the environmental impact study would have considered not only the impact of the levee but the impact of all subsequent projects made possible by the levee relocation, such as expansion of runways and addition of a new general aviation terminal.

For major Federal actions, such as airport development projects, Order 5050.2, which was effective between December 1970 and February 1975, required FAA to (1) analyze the environmental impacts and consequences of the project, (2) prepare and circulate draft and

final environmental impact statements, and (3) make a finding on the proposed action. The order stated that the statutory clause "major Federal actions significantly affecting the quality of the human environment" contained in the National Environmental Policy Act was to be construed with a view to the overall, cumulative impact of the proposed airport development action and of further actions contemplated.

In June 1973, the Authority, consistent with its 1970 airport layout plan, requested a grant to relocate the Missouri River levee located on the airport. According to the original 1973 Draft Environmental Impact Study, the relocation would allow the Authority to reclaim approximately 610 acres of land for future airport expansion and development, such as extension of existing runways, construction of new runways, and addition of a new general aviation area.

The Draft Environmental Impact Statement for the levee did not analyze the impact (including the noise impact on Council Bluffs) of all the airport improvements made possible by the levee relocation. Officials of the Department of the Interior, Environmental Protection Agency, and FAA's Environmental Law Branch questioned the adequacy of the Draft Environmental Impact Statement because the statement did not consider the impact of future development. The Chief of the Environmental Law Branch refused to give legal clearance to the draft statement. In his opinion, the environmental impacts of the planned usage of the reclaimed land could be so adverse that they might not be undertaken, thus removing the need for the levee.

FAA subsequently changed the statement in the final Environmental Impact Statement regarding the purpose of the levee project to read as follows:

"Relocation of the Missouri River Levee will provide many benefits to the further improvement of safety, efficiency, environmental compatibility and utilization of the airport facility."

However, the final Environmental Impact Statement also stated that levee relocation was needed to provide for separated operations and general aviation expansion as soon as possible; and that levee relocation would provide for possible future runway expansion, although there was no evidence that such expansion would be required in the immediate future.

After changing the stated purpose of the levee project, the Department of the Interior and the Environmental Protection Agency removed their objections to the project. Although FAA's Environmental Law Branch continued to have reservations, FAA's Office of Chief Counsel determined that the final Environmental Impact Statement demonstrated that there was sufficient independent utility for the proposed project. The final Environmental Impact Statement was approved by the Department of Transportation on June 20, 1974, and published in the Federal Register on July 10, 1974.

Officials of FAA have stated that no future expansion, made possible by the levee project, would be initiated until an Environmental Impact Statement has been made.

EFFORTS BEING TAKEN TO ABATE NOISE

FAA has initiated several noise abatement actions--some applicable to all airports and jet aircraft and others unique to aircraft operations at the Airfield--which could help reduce aircraft noise over Council Bluffs. If these existing efforts do not help alleviate noise to the extent that Council Bluffs no longer perceives noise as a major problem, additional actions are possible. Some of these measures are currently being considered by FAA and the Congress.

Nationwide noise abatement efforts

In November 1976, FAA issued a regulation that required turbo-jet-powered aircraft approaching an airport to use a minimum flap setting as a means of reducing noise. On December 1, 1976, FAA implemented a noise abatement procedure nationwide providing for lower engine thrust and flap retraction for accelerations on take-offs. As mentioned previously, FAA has issued regulations to require all existing large jet aircraft to meet Part 36 noise levels (see p. 5). Also in February 1977, FAA issued regulations requiring the next generation of transport aircraft to meet more stringent noise standards then currently applied.

Noise abatement procedures at Eppley Airfield

In addition to the nationwide noise abatement procedures, the following noise abatement procedures were initiated at the Airfield on the dates specified.

- When traffic, weather, and wind conditions permit, aircraft departures between the hours of 10:00 p.m. and 7:00 a.m. are to the north or northwest and arrivals are from the north or northwest, thus diverting air traffic away from Council Bluffs. This procedure was implemented on April 1, 1975.

--All jet aircraft departing to the southeast toward Council Bluffs are to climb to a point 4 miles straight out from the end of the southeast runway or until an altitude of 4,500 feet is reached before turning. This procedure was implemented in April 1975, using 4 miles out or an altitude of 4,000 feet for the turning point. It was revised to 5 miles out or an altitude of 6,000 feet in August 1976, and revised to 4 miles out or an altitude of 4,500 feet in September 1976.

--When weather conditions permit, all jet aircraft departing to the southeast toward Council Bluffs, with final destinations other than in a southeasterly direction, are required to make a quick right or left turn in an attempt to avoid flights over Council Bluffs. This procedure began December 1, 1976, as a test and was applied when weather conditions were at or above visual flight rule minimal. We were advised that beginning February 14, 1977, the procedure became permanent and also was to be used during instrument flight rule weather conditions.

In addition, FAA officials told us that whenever possible jet aircraft depart to the northwest in order to alleviate noise over Council Bluffs.

Airport layout and runway instrumentation

The Airfield has three runways (see app. I for an illustration). The southeast/northwest runway is about 8,500 feet long and is the primary runway for jet aircraft. Aircraft approaching either end of this runway have a localizer^{1/} available to them. However, only aircraft approaching from the northwest have a glide path instrument^{2/} available to them.

Appendix II illustrates a glide path instrument landing and how this could help reduce noise if adhered to by pilots. Current FAA plans call for installation of a glide path at the Airfield in June 1977 to accommodate aircraft approaching the main runway from the southeast.

^{1/}A localizer allows the pilot to center his plane in line with the runway while making his approach and landing.

^{2/}A glide path instrument provides vertical guidance for aircraft and allows a gradual line of descent during approach and landing.

As a general rule, landings and departures will be in the same direction, that is when landings are made from the northwest, takeoffs generally are made to the southeast toward Council Bluffs. Conversely, when landings are made from the southeast over Council Bluffs, takeoffs are to the northwest away from Council Bluffs.

The shortest runway at the Airfield is parallel to the primary runway and is about 4,300 feet long. The north/south runway is about 6,000 feet long. Neither of these runways have a glide path or localizer.

Runway use

We compiled and reviewed statistics on jet aircraft departures to determine whether the noise abatement procedures in effect at the Airfield reduce jet aircraft traffic and thus noise over Council Bluffs. Statistical data on jet aircraft departures was obtained for a 15-day period (December 17 to 31, 1976). This data did not show the runways used by arriving aircraft. However, the Chief of the Omaha Air Traffic Control Tower told us that for all jet arrivals between 7:00 a.m. and 10:00 p.m., the aircraft direction and runways used would normally be the same as for departing aircraft. He also said for each jet departure there is a prior corresponding arrival and therefore the total jet arrivals will normally be the same as the total jet departures. Based on our analyses of the data, we found that the runways and runway directions used by departing jet aircraft during December 17 to 31, 1976, were as follows:

<u>Direction of departure (runway)</u>	<u>Number of aircraft</u>	<u>Percent</u>
Northwest	551	71
Southeast	210	27
North	12	1
South	6	1
Total	<u>779</u>	<u>100</u>

As the statistics show, the north/south runway was seldom used by jet aircraft. We discussed usage of the various runways with the Chief of the Airfield Tower. He told us that although they are concerned with the noise problem over Council Bluffs, flight safety dictates the use of the northwest/southeast runway because of its length and instrumentation. A Central Region official told us that there really is no other choice than the northwest/southeast runway for use by jet aircraft.

There are conflicting views concerning whether extending the length of the north/south runway to the north so it could be utilized more, would alleviate the noise problem over Council Bluffs. Some officials told us that increased usage of the runway would simply shift the noise from one area of Council Bluffs to another.

Quick-turn procedures

Our statistical analyses of data on southeast departures towards Council Bluffs during December 17 to 31, 1976, showed that 65 percent of the jet aircraft made quick turns to avoid flying over Council Bluffs. Details follow:

	<u>Total</u>	<u>Maintained Southeast heading (note a)</u>	<u>Made quick</u>	
			<u>Left turn</u>	<u>Right turn</u>
Aircraft	210	74	54	82
Percent	100	35	26	39

a/ For 4 miles or to altitude of 4,500 feet.

On December 13, 1976, FAA's Radar Approach Control at Omaha monitored the quick-turn procedures. On that day all of the 62 jets that departed the Airfield did so on the southeast runway. The jets' normal flight pattern would have been directly over Council Bluffs to an altitude of 4,500 feet or a distance of 4 miles before turning. But, due to the quick-turn procedure, 48 of the jets were instructed to turn, 25 to the right and 23 to the left, after reaching an altitude of 1,500 feet. The Radar Approach Control was able to monitor 38 of the 48 jets making quick turns and found that 17 jets turned within 1-1/2 miles after leaving the runway, thus avoiding much of Council Bluffs, and 21 turned between 1-1/2 and 3 miles.

We discussed the test results with the Chief of the Radar Approach Control and the Chief of the Airfield Tower. They both said the 21 jets turning between 1-1/2 and 3 miles after leaving the runway caused more noise over Council Bluffs than had they followed the prior noise abatement procedure of flying out to 4 miles or to an altitude of 4,500 feet before turning. These officials, however, believed that with more experience, pilots would do a better job of following the quick-turn procedure.

The Radar Approach Control again monitored the quick-turn procedure on January 27, and February 3, 1977. The monitoring was limited to 9 jet aircraft on January 27, and 12 jet aircraft on February 3; all 21 jets turned within 1-1/2 miles after leaving the runway.

Both the Chief of the Radar Approach Control and the Chief of the Airfield Tower told us that in the summer, when temperatures are high, the air is not as dense and aircraft cannot attain the lift they do in cold weather. Consequently, aircraft cannot climb and turn as quickly as they do in the winter and the quick-turn procedure may be less successful then.

Night time procedures

Our analyses of statistical data on the runways used by jets departing the Airfield between 10:00 p.m. and 7:00 a.m. during December 17 to 31, 1976, showed that 210 of the 309 jet aircraft departures, 68 percent, avoided Council Bluffs by departing to the north and northwest. The remaining 99 jet aircraft (32 percent) departed toward Council Bluffs, of which 97 departed southeast and were subject to the quick turn procedure. FAA officials said the 99 jet aircraft not following the night time noise abatement procedures apparently did not do so because of weather or traffic conditions. Details follow:

	<u>Total</u>	<u>Departures away from Council Bluffs</u>			<u>Departures toward Council Bluffs</u>		
		<u>Northwest</u>	<u>North</u>	<u>Total</u>	<u>Southeast</u>	<u>South</u>	<u>Total</u>
Aircraft	309	206	4	210	97	2	99
Percent	100	67	1	68	31	1	32

Of the 97 departures southeast toward Council Bluffs, we found that 60 aircraft (62 percent) made quick turns to avoid flying over Council Bluffs. The remaining 37 aircraft maintained southeast headings for 4 miles or to an altitude of 4,500 feet.

Additional actions possible

As noted in the Department of Transportation's Aviation Noise Abatement Policy dated November 18, 1976, there are a number of additional actions that could possibly be taken to further abate noise at the Airfield, such as limiting the number of operations and prohibiting operations at certain hours or by a particular type of aircraft. The determination of viable noise abatement procedures is the purpose of a "pilot study" referred to in the Department of Transportation's policy statement of November 18, 1976. It states,

in part, that the objectives of such a study:

" * * * is to promote a planning process through which the airport proprietor can examine and analyze the noise impact created by the operation of his airport as well as the costs and benefits associated with various selected alternative noise reduction techniques, individually and/or in combination."

FAA plans to award grants for the preparation of these noise abatement plans by airport proprietors at a limited number of airports this year.

Also in October 1976, the Environmental Protection Agency submitted a proposed regulation to FAA which would require all U.S. airports serving certificated air carriers to develop airport noise abatement plans by July 1979. As required by law, FAA held a public hearing on this proposal and it will have to adopt, reject, or modify this proposal within a reasonable period of time.

In addition, various bills, such as H.R. 3002, H.R. 4539, and H.R. 4597, have been introduced in the 95th Congress for the purpose of helping to control aircraft noise. The Subcommittee on Aviation of the House Committee on Public Works and Transportation has held hearings on H.R. 4539, the Airport and Aircraft Noise Reduction Act. Included in this bill are provisions that would require FAA to establish a single system to measure the cumulative effects of airport noise and to determine the activities or land uses which would be appropriate for different levels of aircraft noise. The bill also would require airport operators at airports with more than 1,500 aircraft departures a year to prepare a noise compatibility program which would set forth measures to reduce or prevent noncompatible uses of land around the airport.

COORDINATION OF AIRFIELD TRAFFIC OPERATIONS WITH COUNCIL BLUFFS

Lack of coordination and communication has apparently contributed to misunderstandings or feelings of mistrust among all parties concerned. Council Bluffs apparently was not given the opportunity to participate in discussions leading to changes in air traffic operations to reduce noise until about May 1976. At that time FAA contacted Council Bluffs officials to arrange a meeting to discuss possible noise abatement procedures. The meeting was held in August 1976, at which time it was decided to direct all jets departing to the southeast over Council Bluffs, to maintain a southeast heading for 5 miles or until an altitude of 6,000 feet was reached.

According to FAA officials, this procedure was designed to prevent turns over Council Bluffs which caused more noise than a runway heading procedure. This procedure was amended in September 1976 by FAA with Council Bluffs approval due to complaints from the Air Transport Association of America, a trade organization representing the domestic airline industry. The Association contended the procedure was not coordinated with them and it wasted time and fuel. The new procedure gave all jets departing to the southeast a runway heading for 4 miles or until an altitude of 4,500 feet was reached.

The Association was not satisfied with the latest runway heading procedure. FAA agreed to meet with the Association and invited Council Bluffs officials to also attend the meeting. The Association objected to Council Bluffs officials attending the meeting because (1) they wanted to present a technical proposal regarding flight safety and traffic patterns and (2) they did not want to discuss the noise issue until the practicability of their proposal had been evaluated by those involved. Subsequently, FAA withdrew the invitation to Council Bluffs officials. This situation further contributed to the mistrust between Council Bluffs and the other parties.

Due to the concern over the aircraft noise and the feeling of being left out of meetings relating to the noise problem, you sponsored a public meeting which was held in Council Bluffs on October 27, 1976. Officials of FAA, Council Bluffs, and the Association attended this meeting. During this meeting the Association presented a new noise abatement test procedure that had been discussed with FAA. Rather than give all jets departing to the southeast a runway heading of 4 miles or 4,500 feet, some jets (depending on destination) would be required to make a quick right or left turn after reaching 1,500 feet (if under visual flight rules) thus avoiding flying over Council Bluffs. The response to this quick-turn procedure from Council Bluffs representatives was favorable.

In November 1976, FAA approved the quick-turn procedure and set up a 60-day test period commencing December 1, 1976. It coordinated these tests with Council Bluffs so the residents could have the opportunity to comment on the effectiveness of the procedure. It also held a meeting on February 8, 1977, with the Association, the Authority's Executive Director, and representatives from Council Bluffs, to discuss the quick-turn procedure. A decision was made to continue the quick-turn procedure under visual flight rules and to extend the procedure to instrument flight rules.

Contacts made by FAA and the Association with representatives of Council Bluffs were voluntary. Appendix III shows the authorities and responsibilities of all parties regarding aviation noise, as stated in the Department of Transportation's Aviation Noise Abatement Policy of November 18, 1976.

We found no regulation or law which requires FAA or the Authority to involve representatives of affected residents in, or advise them of, air traffic or airport operations. We asked the Executive Director of the Authority if he had developed any procedures for doing this. He said he had not, but indicated that recently FAA has been coordinating noise abatement procedures with Council Bluffs. He believed that it was time for someone to take on the responsibility of dealing with the noise problem and coordinate with Council Bluffs. He said that probably the most likely someone would be himself.

CONCLUSIONS

Use of the ASDS, including the 85 decibels on the A scale noise threshold level, by the Authority in its 1974 airport layout plan was reasonable because this system was advocated by FAA at that time. Criticisms on the use of this system in the 1974 plan now lack relevance because the 1974 plan was not approved and FAA no longer recommends use of this system as a noise measurement system. The use of a noise measurement system other than ASDS to measure noise impacts for future plans for the Airfield would seem likely but there is no assurance at this time that the system selected would be uniformly accepted as a valid noise measurement system.

The Central Region did not follow FAA orders concerning compliance with the National Environmental Policy Act in regard to the levee project. As a result, many interested and affected parties were denied the opportunity at that time to provide input on subsequent projects that would be allowed by relocation of the levee.

The various noise abatement procedures undertaken at the Airfield have reduced flights over Council Bluffs, thus reducing noise to some extent but noise will not be eliminated altogether considering the location of the Airfield and its runways in relation to the city of Council Bluffs. Additional actions to abate noise over Council Bluffs are possible if the actions now

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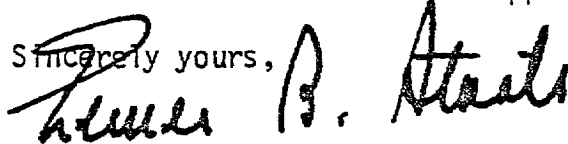
underway do not alleviate noise to the extent that Council Bluffs no longer perceives it as a major problem. Should it be necessary to explore these additional actions, Council Bluffs may wish to encourage the Authority to participate in an FAA sponsored pilot project (see p. 11) to study other alternatives and ways to reduce noise caused by the Airfield's operations.

Lack of coordination and communication has apparently contributed to misunderstandings or feelings of mistrust among all parties concerned. FAA recently has done a good job of spearheading efforts designed to improve coordination and communication, and the Authority recognizes the need to deal with the noise problem and coordinate its efforts with Council Bluffs.

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As your office requested, we did not obtain written comments from FAA. However, we discussed the matters in the report with responsible officials and considered their comments where appropriate.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "James B. Strauch". The signature is written in a cursive, flowing style.

Comptroller General
of the United States

MAP OF EPPLEY AIRFIELD, COUNCIL BLUFFS, IOWA.
(OMAHA AREA)

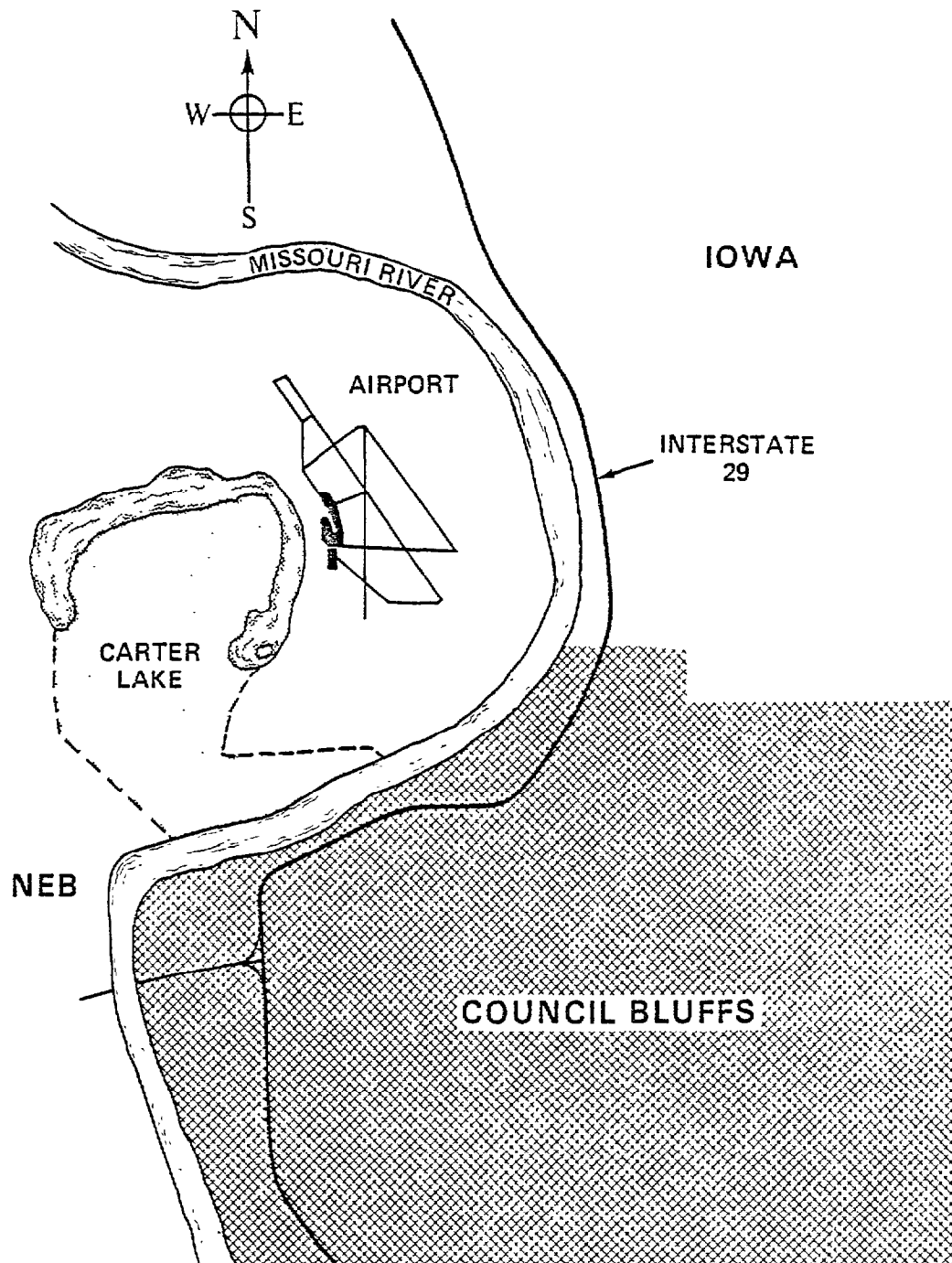
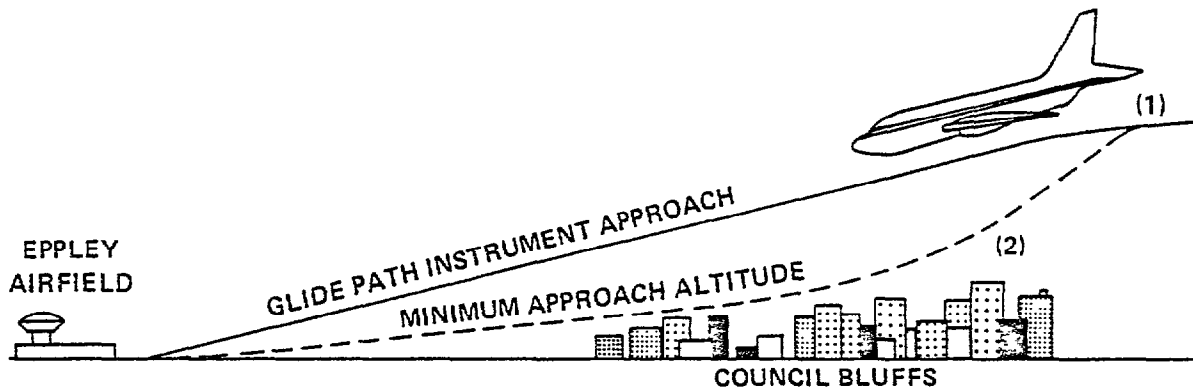


ILLUSTRATION OF GLIDE PATH
INSTRUMENT APPROACH

- (1) At this point the aircraft is approximately 5 miles from the end of the runway and at an altitude of about 1,400 feet above ground level.
- (2) At this point without a glide path instrument the aircraft must increase its power to maintain the minimum approach altitude of approximately 400 feet above ground level. This is about 3-1/2 miles from the end of runway.

Note: The fact that the southeast runway does not have a glide path instrument can effect the level of noise over Council Bluffs. Without a glide path, aircraft can descend and level off anywhere between the glide path and minimum approach altitude thus necessitating greater uses of power (thrust), which significantly increases noise at ground level, to maintain altitude. The glide path, if used by the pilot, can minimize the need for power increases and result in generally higher approaches.

EXTRACTS FROM THE
DEPARTMENT OF TRANSPORTATION'S
AVIATION NOISE ABATEMENT POLICY DATED
NOVEMBER 18, 1976

Authorities and Responsibilities Under the Policy

The Federal Government has the authority and responsibility to control aircraft noise by the regulation of source emissions, by flight operational procedures, and by management of the air traffic control system and navigable airspace in ways that minimize noise impact on residential areas, consistent with the highest standards of safety. The Federal Government also provides financial and technical assistance to airport proprietors for noise reduction planning and abatement activities and, working with the private sector, conducts continuing research into noise abatement technology.

Airport Proprietors are primarily responsible for planning and implementing action designed to reduce the effect of noise on residents of the surrounding area. Such actions include optimal site location, improvements in airport design, noise abatement ground procedures, land acquisition, and restrictions on airport use that do not unjustly discriminate against any user, impede the Federal interest in safety and management of the air navigation system, or unreasonably interfere with interstate or foreign commerce.

State and Local Governments and Planning Agencies must provide for land use planning and development, zoning, and housing regulation that will limit the uses of land near airports to purposes compatible with airport operations.

The Air Carriers are responsible for retirement, replacement, or retrofit of older jets that do not meet Federal noise level standards, and for scheduling and flying airplanes in a way that minimizes the impact of noise on people.

Residents and Prospective Residents in areas surrounding airports should seek to understand the noise problem and what steps can be taken to minimize its effect on people. Individual and community responses to aircraft noise differ substantially and, for some individuals, a reduced level of noise may not eliminate the annoyance or irritation. Prospective residents of areas impacted by airport noise thus should be aware of the effect of noise on their quality of life and act accordingly.